UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,360	10/16/2000	Toshihiko Oba	KOI-046	6711

7590 07/21/2003

Rader Fishman & Grauer
1233 20th Street NW Suite 501
Washington, DC 20036

EXAMINER
NOLAN, DANIEL A

ART UNIT	PAPER NUMBER
2654	11

DATE MAILED: 07/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/673,360	OBA, TOSHIHIKO	
	Examiner	Art Unit	
	Daniel A. Nolan	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 June 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,26 and 27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,26 and 27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 August 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 12
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(Note that this application has been included in **Art Unit 2654**, and that this AU number should be used in all future correspondence.)

2. Because the language of certain claims is written in the manner prescribed to determine the equivalents of the element, as required by 35 U.S.C. 112, 6th paragraph, including listing the means in the specification where indicated, the Examiner is proceeding with the understanding that such claims are intended to be examined as "means plus function" claims. See Ex parte Klumb, 159 USPQ 694 (Bd. App. 1967)

Information Disclosure Statement

3. The information disclosure statement filed 09 June 2003 fails to completely comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because of the following defects:

- The extract provided for Japan Patent 1-47800 is mismatched. The illustration is for *opticals* but the extract is for *biologicals*.
- A faxed article in Japanese from Toshiba Obi was included in the materials but not listed on the form 1449.

The cited references have been included in the application file, but those specific matters referred to therein have not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Response to Amendment

4. The reply filed 09 June 2003 was applied to the following effect:

- The title was changed and the objection is withdrawn.
- The substitute specification was entered and the objections have been withdrawn as satisfied.
- Claims 2-25 and 28-34 were cancelled and the rejections are withdrawn as moot.

Allowable Subject Matter

5. The indicated allowability of claims 25-27 is withdrawn in view of the newly discovered reference(s) to Kono & Iwamida. Rejections based on the newly cited reference(s) follow.

Claim Objections

6. Claim 26 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

- The feature that *detects speech uttered using speech production substitutes* is undistinguished from the corresponding feature added to claim 1.
- The Examiner is proceeding with the understanding that the feature is intended to differentiate the means from claim 27, as with a further limitation of "*other than methods initiated in response to signals other than speech*".

Claim Rejections - 35 USC § 103

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Visser, Tanaka *et al* & Kono

8. Claims 1 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Visser (U.S. Patent 4,545,065 A) in view of Tanaka *et al* (Japan Patent 05-083763) and further in view of Kono (Japan Patent 07-013582).

9. Regarding claim 1, the coding signal processing method and apparatus of Visser applies to the immediate application as follows:

- Visser (column 7 lines 15-20) reads on the feature of *acousto-electric transducing means for detecting the speech to generate speech signals;*
- Visser (column 7 lines 3-6) indicates that his invention is suited for *recognition* but does not further disclose such an application. Tanaka *et al* (section [0034] line 2) reads on the feature of *recognition means for performing speech recognition processing using the speech signals from* the *acousto-electric transducing means* and the feature of *transforming means for working on and transforming the result of recognition depending on the using objectives.*

  It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Tanaka *et al* to the device/method of Visser so as to transform the spoken command to action.
- Visser (66-68 figure 3A) reads on the feature of *output control means for generating a control signal for outputting the result recognized by recognition means and/or the result of recognition obtained on working and transformation*

operations but does not mention changing the display to indicate the success of the operation.

- Tanaka *et al* (section [0034] lines 3-4) reads on the features of having *output means for outputting the result of recognition recognized and worked on and transformed, based on said control signal to present the result of recognition to the user* (on a) *display means for demonstrating an image or electro-acoustic transducing means for outputting speech*;

  Tanaka *et al* (section [0035] lines 1-2) reads on the feature that *output control means generates a control signal so that the result of recognition worked on and transformed and/or the result of recognition not worked on or transformed is demonstrated as an image on display means of said output means, and generates a control signal for outputting from said electro-acoustic transducing means the result of recognition and/or the result of recognition worked on and transformed as speech.*

  It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Tanaka *et al* to the device/method of Visser to indicate to the operator that the specified action had taken place (or not).

- Visser does not speak to speech from those with disorders.

  Kono [0009] reads on the feature that the *acousto-electric transducing means generates the speech uttered with voice and speech disorder to generate speech signals,*

Kono [0008] reads on the feature that the *transforming means includes speech recognition means for performing processing for speech recognition based on speech signals from said acousto-electric transducing means,*

Kono (figure 5 and section [0023] lines 2-3) reads on the feature of *storage means for memorizing speech data generated on previously sampling the speech uttered without voice-speech disorders* (i.e. the *standard* in the 2nd line) *and speech information generating means for generating the speech information indicating the output speech* (4th line), *using the speech data memorized in said storage means, based on the result of recognition by said speech recognition means.*

- Visser does not mention detecting speech uttered by auxiliary means, nor does he mention detecting speech uttered using voice-correcting devices. Kono (by detecting the vibrations from oscillating source [0011] lines 3-4) reads on the alternative of these features that the *acousto-electric transducing means detects the speech uttered using devices used for correcting voice-speech disorders, as the speech uttered by a person with voice-speech disorders, to generate speech signals.*
- It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Kono to the device/method of Visser so as to pronounce those vowels and consonants that a person may be unable to form, restoring speech as a singular means of communication, as, when the hands are not free to gesture.

10. Regarding claim 26 as understood by the Examiner, the claim is set forth with the same limits as claim 1. The feature of the claim is the same as those found in claim 1 and the claim is rejected for the same reasons.

Visser, Tanaka *et al*, Kono & Iwamida

11. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Visser in view of Tanaka *et al* and further in view of Kono and further in view of Iwamida (Japan Patent 07-084592).

12. Regarding claim 27, the claim is set forth with the same limits as claim 1. Visser does not process signals other than speech. Iwamida (with the 2nd line section [0001]) reads on the feature that *detects the speech uttered by a person with voice-speech disorders, using a technique used for correcting the voice-speech disorders, other than the speech production substitutes, as the speech uttered with voce-speech disorders, to generate speech signals.*

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Iwamida to the device/method of Visser so as to expand the subjects that can be addressed without increasing the word vocabulary by incorporating basic noise sounds as representing specific articles.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Hanada (Japan Patent 64-047800) recognizes words in speech impediments.
- Note that complete, machine-translated copies of the cited IDS references cited were obtained for verification and are included on form 892 with this action.

14. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on Kono & Iwamida prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609(B)(2)(i). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Daniel A. Nolan at telephone (703) 305-1368 whose normal business hours are Mon, Tue, Thu & Fri, from 7 AM to 5 PM.

If attempts to contact the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached at (703)305-9645.

The fax phone number for Technology Center 2600 is (703)872-9314. Label informal and draft communications as "DRAFT" or "PROPOSED", & designate formal communications as "EXPEDITED PROCEDURE".

Formal response to this action may be faxed according to the above instructions,

or mailed to: Box AF
Commissioner of Patents and Trademarks
Washington, D.C. 20231

or hand-delivered to: Crystal Park 2,
2121 Crystal Drive, Arlington, VA,
Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 Customer Service Office at telephone number (703) 306-0377.

Daniel A. Nolan
Examiner
Art Unit 2654

DAN/d
July 11, 2003

Richemond Dorvil
Primary Examiner